

## HIGH RESPONSE, COMPACT TURBOCHARGER

### ABSTRACT

Turbochargers of this invention comprise a turbine housing and a turbine wheel  
5 rotatably disposed therein. A center housing is connected to the turbine housing, and a  
compressor housing is attached to the center housing. A compressor is rotatably disposed within  
the compressor housing, and comprises two impellers placed in back-to-back orientation. A  
movable member is disposed within the compressor housing to downstream of the compressor to  
control the flow of air within the compressor housing. The position of the movable member can  
10 be operated to control the amount of pressurized air that is produced by one of the compressor  
impellers to provide enhanced compressor operating efficiency throughout the operating range  
and mass flow requirements of the engine.